

SHKINEV, A.N., inzhener, redaktor; PEVZNER, A.S., redaktor; TOKER,
A.M., tekhnicheskii redaktor.

[Norms and technical requirements for designing masonry and reinforced masonry construction (NiTU 120-55)] Normy i tekhnicheskie usloviia proektirovaniia kamennykh i armo-kamennykh konstruksii (Ni TU 120-55) Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1955. 151 p. (MLRA 8:11)

1. Russia (1923- U.S.S.R) Gosudarstvennyi komitet po delam stroitel'stva.

(Masonry)

SHKINEV, A.N., inzhener; redaktor; PEVZNER, A.S.; redaktor; GUSEVA, S.S.,
tekhnicheskii redaktor.

[Instruction for determining types of stone walls in architectural designing (I 102-55)] Instruktsiia po naznacheniiu tipov kamennykh sten pri proektirovanii zdanii (I 102-55) Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 41 p. (MLRA 9:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyi komitet po delam stroitel'stva. (Walls)

ABELEV, Yu.M., professor, redaktor; SHKINEV, A.N., inzhener, redaktor;
PETROVA, V.V., redaktor izdatel'stva; MEL'NICHENKO, F.P.,
tekhnicheskii redaktor

[Norms and specifications for planning and erecting buildings and
industrial structures on macroporous and yielding earth] Normy i
tekhnicheskie uslovia proektirovaniia i stroitel'stva zdani i
promyshlennykh sooruzhenii na makroporistykh prosadochnykh gruntakh.
(NITU 137-56). Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture,
1956. 52 p. (MLRA 10:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyi komitet po delam
stroitel'stva.
(Building) (Earthwork)

SHKINEV, A.N., inzh., red.; MUNITS, A.P., red.; TOKER, A.M., tekhn.red.

[Technical specifications for planning silos for bulk storage]
Tekhnicheskie usloviia proektirovaniia silosov dlia sypuchikh
tel (TU 124-56). Moskva, Gos.izd-vo lit-ry po stroit.i arkhitekt.,
1957. 27 p. (MIRA 11:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam
stroitel'stva.

(Silos)

SHKINEV, Aleksandr Nikolayevich, dots.; NESOV, V.D. : inzh.,
nauchnyy red.; VDOVENKO, Z.I., red. izd-va; KASIMOV, D.Ya.,
tekhn. red.

[Accidents at construction installations; their causes and
ways of preventing and eliminating them]Avarii na stroitel'-
nykh ob"ektakh, ikh prichiny i sposoby preduprezhdeniia i
likvidatsii. Moskva, Gosstroizdat, 1962. 217 p.

(MIRA 15:10)

(Building--Accidents)

SHKINEV, A.N., inzh.

Breakdowns of some silo-type structures. Prom. stroi. 40 no.7:45-50
'62. (MIRA 15:7)

(Concrete construction)

TUPOLEV, M.S., doktor arkh, prof.; SHKINEV, A.N., inzh., dots.;
POPOV, A.A., kand. arkh. dots.; DUZINKEVICH, S.Yu., nauchnyy
red.; IVANOV, S.A., nauchnyy red.; FEDOROVA, T.N., red.izd-va;
KOROBKOVA, N.I., tekhn. red.

[Residential, public and industrial buildings]Grazhdanskie i
promyshlennye zdaniia. Moskva, Gosstroizdat. Pt.1.[Residen-
tial and public buildings]Grazhdanskie zdaniia. Pod obshchei
red. M.S.Tupoleva. 1962. 275 p. (MIRA 16:3)
(Buildings—Design and construction)

TUPOLEV, M.S., doktor arkh. prof.; POPOV, A.N., prof.; POPOV, A.A.,
kand. arkh. dots.; SHKINEV, A.N., inzh., dots.; KHRUSTALEV,
A.A., kand. arkh. dots.; NEYSHTADT, L.I., nauchnyy red.;
FEDOROVA, T.N., red. izd-va; KOROBKOVA, N.I., tekhn. red.

[Public and industrial buildings] Grazhdanskie i promyshlen-
nye zdaniia. Pod obshchei red. M.S. Tupoleva. Moskva, Gos-
stroizdat. Pt. 2. [Industrial buildings] Promyshlennye zdaniia.
1963. 198 p. (MIRA 16:7)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury
SSSR (for Popov, A.N.). 2. Prepodavateli Moskovskogo arkhitek-
turnogo instituta (for Tupolev, Popov, A.N., Popov, A.A.,
Shkinev, Khrustalev). (Industrial buildings)

DYKHOVICHNYY, Yu.A., inzh.; KAMENKOVICH, M.S., inzh.; Primali
uchastiye: KONDRAT'YEV, A.N., inzh.; VIDGOL'TS, O.M., inzh.;
SKANAVI, A.N., kand. tekhn. nauk; BORODINA, I.S., red.izd-
va; SHKINEV, A.N., inzh., nauchnyy red.; MOCHALINA, Z.S., tekhn.red.

[Concise handbook on the design of residential and public
buildings] Kratkii spravochnik po proektirovaniu zhilykh i
grazhdanskikh zdaniy. Moskva, Gosstroizdat, 1963. 507 p.
(MIRA 16:5)

(Apartment houses--Design and construction)
(Public buildings--Design and construction)

SHKINEV, K.

If you are familiar with economics... Sov. profsoiuzy 18
no.1:41 Ja '62. (MIRA 15:2)

1. Glavnyy bukhgalter zavoda imeni Yanvorskogo vosstaniya,
g. Odessa. (Odessa--Iron and steelworkers--Education and training)

1. SHKINEV, M.N.; OSIPOVSKIY, K.I.; RUMYANTSEV, I.F.

2. USSR (600)

4. Pipe

7. Device for casting lead sleeves. Rab.energ. 2 no.10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

SHKINKIS, TS. [Skinkis, C.]

Research on the drainage regulation of the regime of ground-water
levels of excessively moistened mineral soils. Vestis Latv ak
no.8:153-160 '60.

(EEAI 10:9)

(Drainage) (Soils)

SHKINKIS, TS.[Skinkis, C.]

Effect of drain spacing on drainage runoff conditions. Vestis Latv
ak no.6:153-160 '61.

(Latvia--Drainage)

SHKINKIS, TS.[Skinkis, C.]

Investigations of the kinematics of the depression curve. Vestis
Latv ak no.7:115-123 '61.

(Latvia—Drainage)

SHKINKIS, TS.N. [Skinkis, C]

Effect of soil conditions on the hydraulic efficiency of drainage.
Pochvovedenie no.11:98-103 N '61. (MIRA 14:12)

1. Latviyskiy nauchno-issledovatel'skiy institut gidrotekhniki i
melioratsii.

(Drainage)

SHKINKIS, TS.N. [Skinkis, C.], kand. tekhn. nauk (Riga)

Problem of the depth of laying drainage pipes. Gidr. i mel.
17 no.9:35-45 S '65. (MIRA 18:10)

SHKINKIS, TS.N. [Skinkis, C.]

Using drainage to regulate the moisture of turf-Podzolic soil.
Pochvovedenie no.4:1-6 Ap '62. (MIRA 15:4)

1. Latvliyskiy nauchno-issledovatel'skiy institut gidrotekhniki i
melioratsii.
(Podzol) (Drainage)

SHKIOPU, M.

ROUMANIA/Physical Chemistry. Crystals.

B-5

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14448

Author : M. Shkiopu

Inst :

Title : Analytical method of designing crystallographic models

Orig Pub: Bul. Inst. polithm. lasi, 1955, 1, Nos 1-2, 45-52

Abstract: No abstract

Card 1/1

SHKIPEROV, B.A.; inzh.

Lime-alumina filler used for painting. Nov.tekh. i pered. op.
v stroi. 19 no.7:27-28 J1 '57. (MIRA 10:10)
(Paint) (Fillers (In paper, paint, etc.)

SHKIBANOV, P., SPITSYN, A.

Improved support device for semitrailers. Avt.transp. 43 no.3:42
Mr '65. (MIRA 18:5)

1. The following information is being furnished to you for your information:

2. The information is being furnished to you for your information. (MIRA 1443)

POLUBARINOVA-KOCHINA, P.Ya. (Moscow); SHKIRICH, A.R. (Moscow)

On the displacement of petroleum-bearing strata outlines. Izv. AN
SSSR Otd.tekh.nauk no.11:105-107 N '54. (MIRA 8:4)

1. Institut mekhaniki Akademii nauk SSSR.
(Petroleum engineering) (Soil percolation)

GALIN, L.A. (Moskva); KARYCHEVA, Z.F. (Moskva); SHKIRICH, A.R. (Moskva)

Spreading out of the lens of ground waters. Prikl.mat.i mekh.

24 no.3:559-562 My-Je'60.

(MIRA 13:10)

(Seepage)

BONDARILV, E.A. (Moskva); SEMIRICH, A.R. (Moskva)

Experimental investigation of longitudinal and lateral convective
diffusion in a porous medium. Izv. AN SSSR. Mekh. no.6:138-141
II-D '65. (MIRA 16:12)

ROMANOV, L.; SHKIRKIN, G., starchy nauchnyy sotrudnik, KOLGANOV, N.,
starchy nauchnyy sotrudnik

Modernizing the DNE-5 sprayer. Zashch. rast. sv. v. 4. 1 bel.
10 no. 10:27-29 '65. (MTR: 18:12)

1. Zavodiyashchiy laboratoriyey Pushkinskiy mashinostroyitel'nyy
plantii (for Romanov). 2. Institut sadovodstva imeni I.V.
Michurina (for Shkirkin, Kolganov).

SHKIRKIN, G.G.

The RSSh-6 horticultural manure spreader. Biul.tekh.-ekon.
inform. no.1:61-63 '62. (MIRA 15:2)
(Gardening...Equipment and supplies)
(Fertilizers and manures)

SHKIRKIN, G.G.

The KSSH-6 wide-range fertilizer spreader for vineyards. Trakt.
i sel'khoz mash. no.8:32 Ag '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut sadovodstva im. Michurina.

VANYUSHKINA, Shura; SHKIRKO, MAYYA; MITYASHOVA, Valya

Spreading-habited trees. IUn. nat. no.5:9-10 My '58.

(MIRA 11:5)

1.Oblastnaya stantsiya yunnatov, Omsk.
(Apple)

L: 22814-66 EWT(m) WW/JWD

ACC NR: AP6011501

SOURCE CODE: UR/0414/65/000/004/0024/0030

AUTHOR: Maksimov, E. I. (Moscow); Merzhanov, A. G. (Moscow); Shkiro, V. M. (Moscow)

ORG: none

TITLE: Gasless compositions as the simplest combustion model for nonvolatile condensed systems

SOURCE: Fizika gorennya i vzryva, no. 4, 1966, 24-30

TOPIC TAGS: solid propellant, combustion, combustion instability

ABSTRACT: Condensed phase reactions are of fundamental importance for studying solid propellant combustion. However, the presence of gasification processes and gas-phase reactions affects the combustion mechanism so that the characteristics of the condensed-phase reactions can be studied only with a model mixture in which no gases are formed. Most of the known thermites have been found to be unsuitable for this purpose since they all exhibited a considerable pressure effect on the burning velocity, thus indicating the presence of gas-phase reactions. Therefore, to formulate a thermit which would react only in the condensed phase, a mixture of 25% Al and 75% Fe_2O_3 was diluted with various amounts of Al_2O_3 so that the burning temperature was lowered

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UDC: 536.46+541.427.6

L 22814-66
ACC NR: AP6011501

below the boiling temperatures of any of its components or products. These mixtures were compacted to densities in the range of $0.1 < \rho/\rho_{\max} < 0.7$ ($\rho_{\max} = 4 \text{ g/cm}^3$). Tests showed that the burning velocity was fully independent of pressure as predicted. The maximum burning temperature vs. the burning velocity curve was linear, but at about 2600K it had a break which is attributed to the onset of the boiling of aluminum. The burning velocity vs. density curve had a characteristic minimum. This is attributed to the effect of the thermal diffusivity since the burning velocity vs. the thermal diffusivity curve had the same characteristic. The burning velocity was independent of particle size which indicates that the process is not diffusion controlled, but rather it occurs in a purely kinetic regime. The burning velocity can therefore be described by the following formula derived from the thermal combustion theory:

$$u_{st}^2 = a \frac{c}{Q(1-\eta)} \cdot \frac{RT_m^2}{E} K_0 \exp\left(-\frac{E}{RT_m}\right),$$

where a is the thermal diffusivity; R , gas constant; K_0 , pre-exponential factor; E , activation energy; Q , thermal effect of the reaction of a stoichiometric mixture in the liquid state; c , mean heat capacity; and η is the dilution factor. The experimental results were in good

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L 22814-66

ACC NR: AP6011501

agreement with values calculated by this formula. Therefore, it can be used for calculating the kinetic parameters E and K_0 , which were calculated to be 130 kcal/mole and 10^{15} l/sec, respectively, for the mixture tested. It is concluded that the tested model mixture can be used for further studies of complex combustion processes which also involve gas phase reactions. Orig. art. has: 2 formulas and 7 figures. [PV]

SUB CODE: 21/ SUBM DATE: 27Mar65/ ORIG REF: 015/ OTH REF: 003

ATD PRESS: 4229

Card 3/3

SHKIRKO, N.

AID - P-245

Subject : USSR/Aeronautics

Card : 1/1

Author : Shkirko, N., Lt. Col.

Title : More Concretely Supervise the Combat Training of Pilots

Periodical : Vest. vozd. flota, 6, 25-30, Je 1954

Abstract : The author analyses the method of combat training and gives examples of how this training was organized in various Soviet Air Force units. The important role of the commander of the unit is stressed. Names of officers in charge of training are mentioned.

Institution : None

Submitted : No date

SOLOV'YEV, K.N.; SHKIRMAN, S.F.; KACHURA, T.F.

Spectral-luminescent properties of benzopurpurins. Izv. AN SSSR.
Ser. fiz. 27 no.6:767-771 Je '63. (MIRA 16:7)

1. Institut fiziki AN Belorusskoy SSR.
(Benzopurpurin--Spectra)

SEVCHENKO, A.N. akademik; SOLOV'YEV, K.N.; SHKIRMAN, S.F.;
SARZHEVSKAYA, M.V.

Quasi-line electron vibration spectra of porphine and
dihydroporphine. Dokl. AN SSSR 153 no.6:1391-1394 D '63.
(MIRA 17:1)

1. Institut fiziki AN BSSR. 2. AN BSSR (for Sevchenko).

GURINOVICH, G.P.; PATSKO, A.I.; SOLOV'YEV, K.N.; SHKIRMAN, S.S.

Polarization of the phosphorescence of metal porphyrins. Opt.
i spektr. 19 no.2:239-241 Ag '65. (MIRA 18:8)

L 49773-65

UR/0058/65/000/003/D028/D028

ACCESSION NR: AR5012244

SOURCE: Ref. zh. Fizika, Abs. 3D196

AUTHORS: Solov'yev, K. N.; Shkirman, S. F.; Sarzhevskaya, M. V.

TITLE: Quasilinear electronic spectra of porphin and its derivatives

CITED SOURCE: Tr. Komis. po spektroskopii. AN SSSR, vyp. 1, 1964, 634-647

TOPIC TAGS: absorption spectrum, luminescence spectrum, porphin, dihydroporphin, electronic spectrum, line spectrum

TRANSLATION: The quasilinear spectra of absorption and luminescence of porphin and hydroporphin (chlorin) and also some of their derivatives, were investigated in crystalline matrices of n-paraffins at 77K. The observed frequency differences are interpreted. Comparison of the spectra of the porphin and chlorin shows that the hydration of the double bond in one of the pyrrole rings does not affect adversely the sharpness of the lines. It is assumed that the absence of splitting in the spectra of chlorophyll is due to the fact that the system of extraneous substitutes is probably complicated by the presence of a phytol residue.

SUB CODE: OP, OC
Card 1/1

ENCL: 00

L 64310-65 EPF(c)/ENP(j)/EWA(c)/EWT(l)/ETP(m) IJP(c) RM

ACCESSION NR: AP5012763

UR/0020/65/161/006/1313/1316

AUTHOR: Sevchenko, A. N.^{44,55} (Academician AN BSSR); Solov'yev, K. N.^{44,55}; Shkirman, S. F.^{44,55}
Kachura, T. F.^{44,55}

TITLE: Quasi-linear electronic spectra of tetrabenzoporphin

SOURCE: AN SSSR. Doklady, v. 161, no. 6, 1965, 1313-1316

TOPIC TAGS: absorption spectrum, fluorescence spectrum, spectrum analysis, non-metallic organic compound, electron transition

ABSTRACT: The authors investigate the quasi-linear absorption and fluorescence spectra of tetrabenzoporphin, from which a whole series of benzoporphins is derived. The tetrabenzoporphin was dissolved in chlorobenzene and small quantities of it were introduced into a hydrocarbon. The quasi-line spectra were photographed with a glass spectrograph ISP-51 with long-focus UF-84 camera. The spectrum was analyzed in detail and both differences and similarities of the room-temperature absorption spectra of tetrabenzoporphin and the porphyrins are discussed in detail. A table is presented of the frequencies of the normal oscillations of tetrabenzoporphin, based on the study of the quasi-line fluorescence and absorption spectra corresponding to four electronic transitions. The results are compared with those obtained by others. The causes of the peaks in the absorption band are explained. Some

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L 64310-65

ACCESSION NR: AP5012763

3
hypotheses concerning the nature of the multiplets in the spectra are advanced and it is suggested that in the present case the structure of the multiplet is determined only by the orientation of the electronic oscillator relative to the molecular axis. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut fiziki Akademii nauk BSSR (Institute of Physics, Academy of Sciences, BSSR) ^{44.55}

SUBMITTED: 03Dec64

ENCL: 00

SUB CODE: OP

NR REF SOV: 004

OTHER: 002

KC
Card 2/2

SEVCHENKO, A.N.; BRIGORIN; SOLOV'YEV, M.N.; NASHENKO, V.A.; SHKIPMAN, S.F.

low-temperature polarization spectra of porphine and its derivatives.
Dokl. AN SSSR 243 no.6:1367-1370 Ag 1975.

(MIRA 18:8)

1. Institut fiziki AN BSSR. 2. AN BSSR (for Sevchenko).

L 01257-66 EWT(1)/EWT(m)/EPF(c)/EWP(j)/EWA(c)---IJP(c) RM
 UR/0048/65/029/008/1378/1381

ACCESSION NR: AP5020803

AUTHOR: Shkirman, S. F.; Solov'yev, K. N.

TITLE: Quasi-line fluorescence spectra of tetrazaphyrin and tetrabenzoporphyrin
 Report, 13th Conference on Luminescence held in Khar'kov 25 June to 1 July 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 8, 1965, 1378-1381,
 and insert facing p. 1378

TOPIC TAGS: absorption spectrum, luminescence spectrum, line spectrum, vibration
 frequency, solution property

ABSTRACT: In this paper is reported a continuation of earlier work by the authors
 and collaborators (Dokl. AN SSSR. 153, 191, 1963) on quasi-line fluorescence
 spectra in unbranched hydrocarbon solvents at liquid nitrogen temperatures. The
 emission and absorption spectra of tetrazoporphyrin and tetrabenzoporphyrin in
 n-octane were recorded at 77°K. The tetrazoporphyrin was synthesized by the Lin-
 stead-Whalley method, and the tetrabenzoporphyrin by a modification of the Lin-
 stead-Weiss method in which a cadmium complex rather than a zinc complex was em-
 ployed. The solutions in n-octane were obtained by dissolving the materials in
 more suitable solvents (chlorobenzene or a piridine-acetone mixture) and adding

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L 01257-66

ACCESSION NR: AP5020803

small quantities of these solutions to n-octane. Both the emission and absorption spectra of both materials were rich in lines and evinced a doublet structure. Many vibrational frequencies in both molecules were determined; these are tabulated and their identification is discussed. Some identifications were made difficult by violation of the mirror symmetry rules by tetrabenzoporphyrin; this difficulty was obviated by comparing the tetrabenzoporphyrin spectrum with the spectrum of zinc tetrabenzoporphyrin, which more nearly conformed to the symmetry rules. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, GC

NO REF SOV: 003

OTHER: 002

Card ^{ms} 2/2

L 8268-66 EWT(1)/ IJP(c) WW/GG

ACCESSION NR: AP5019756

UR/0051/65/019/002/0239/0241

AUTHOR: ^{44,55}Gurinovich, G. P.; ^{44,55}Patsko, A. I.; ^{44,55}Solov'yev, K. N.; ^{44,55}Shkirman, S. F. ^{535.51 : 535.373}

TITLE: Polarization of the fluorescence of metalloporphyrins

SOURCE: Optika i spektroskopiya, v. 19, no. 2, 1965, 239-241

TOPIC TAGS: metal compound, fluorescence, ^{21,44,55}light polarization, phosphorescence, intermolecular complex

ABSTRACT: The authors measured the limiting degree of polarization and the polarization spectra of zinc complexes of mesoporphyrin, octaethylporphine, tetraphenylporphine, tetrabenzoporphine, and copper complexes of mesoporphyrin and tetraphenylporphine. The zinc complexes exhibit both fluorescence and phosphorescence, the copper complexes only phosphorescence. The measurements were made with a double monochromator described previously (Izv. AN SSSR ser. fiz. v. 22, 1407, 1958) using rectangular vacuum cells immersed in liquid nitrogen in a quartz Dewar. The spectra are shown in Fig. 1 of the Enclosure. The results show that the degree of phosphorescence polarization is small and positive ($\sim 1/7$) and does not depend on the excitation wavelength. The results are compared with other phosphorescence studies. The difference from the case of aromatic compounds is attributed to the

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L 8268-66

ACCESSION NR: AP5019756

increased interaction between the singlet and triplet levels, due to the heavy metal in the metalloporphyrin molecule. The results also point to an interaction between the triplet (π , π^*) level with the singlet (π , π^*) level, probably with the first excited level. This interaction may also be the cause of the difference in the spectra and luminescence durations of the metalloporphyrins and aromatic compounds. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 22Jul64

ENCL: 01

SUB CODE: OP

NR REF SOV: 006

OTHER: 004

Card 2/3

L 8268-66

ACCESSION NR: AP5019756

ENCLOSURE: 01

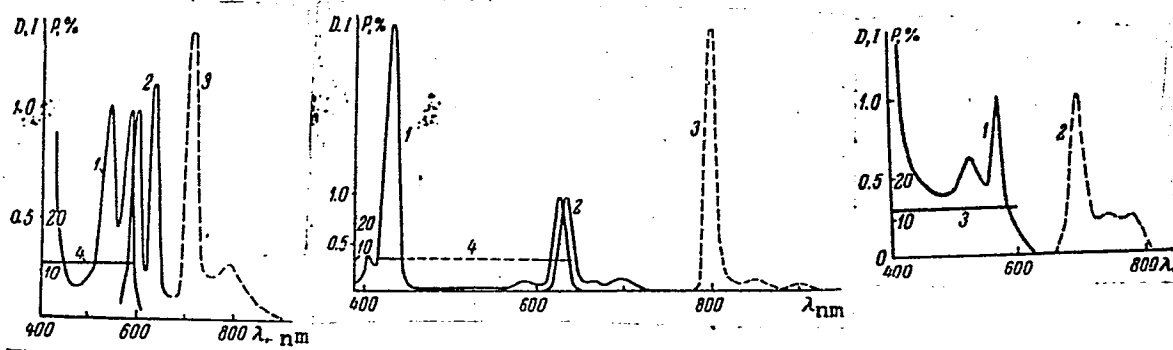


Fig. 1. Spectra of Zn mesoporphyrin (left), Zn tetrabenzoporphin (center), and Cu mesoporphyrin (right). 1 - Absorption spectrum, 2 - fluorescence spectrum, 3 - phosphorescence spectrum, 4 - polarization spectrum of phosphorescence.

Card 3/3

L 04642-67 EWT(m)/EWP(j) RM
ACC NR: AP6024410

SOURCE CODE: UR/0020/66/169/001/0077/0080

AUTHOR: Sevchenko, A. N. (Academician AN BSSR); Solov'yev, K. N.; Gradyushko, A. T.; Shkirman, S. F.

ORG: Institute of Physics, Academy of Sciences BSSR (Institut fiziki Akademii nauk BSSR)

TITLE: Quasiline electronic spectra of metal derivatives of tetrabenzoporphin and phthalocyanine 38
37
B

SOURCE: AN SSSR. Doklady, v. 169, no. 1, 1966, 77-80

TOPIC TAGS: electron spectrum, vibration spectrum, metallic organic derivative, phthalocyanine, spectral line, line intensity, molecular interaction

ABSTRACT: This research was motivated by the analogy between complex compounds of porphin derivatives with metals, on the one hand, and biological substances such as chlorophyll on the other. The authors succeeded in overcoming some of the earlier difficulties in the study of the fine structure of the electron-vibrational spectra of porphyrins, by creating conditions under which the quasiline spectra are sufficiently sharp to permit a vibrational analysis of the fluorescence absorption spectra. The procedure is similar to that used earlier for nonmetallic compounds (Izv. AN SSSR ser. fiz. v. 29, 1378, 1965 and earlier), n-octane being used as a host matrix for the investigated substance. The spectra were obtained with an ISP-51 spectrograph with a UF-84 camera. Detailed data on the spectra of tetrabenzoporphin, magnesium-

UDC: 535.333

Card 1/2

ШКИРМАНКОВ, В. И.

USSR/Biology - Ornithology

Card 1/1 Pub. 86-28/33

Authors : Shkirmankov, V. I.

Title : The water rail

Periodical : Priroda 43/11, page 119, Nov 1954

Abstract : Specimens of the water rail, which is a migratory bird, supposedly spending the winter in Africa, where found wintering in the White Russian republic.

Institution : ...

Submitted : ...

SHKIRMANKOV, V.I.

Wintering of vipers. Priroda 44 no.12:114 D '55. (MLRA 9:1)

1.Predsedatel'kolkhoza imeni N.K.Krupskoy, Slavgorodskogo rayona,
Mogilevskoy oblasti, BSSR.
(Slavgorod District--Serpents)

L 21405-66 ENT(m)/T/EWP(t) LJP(c) WW/JW/JD/WE

ACC NR: AP6008096

SOURCE CODE: UR/0076/66/040/002/0468/0470

AUTHOR: Maksimov, E. I.; Merzhanov, A. G.; Shkiro, V. M. 48

ORG: Branch of the Institute of Chemical Physics, Academy of Sciences SSSR (Filial
Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Self-ignition of thermite mixtures 14

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 2, 1966, 468-470

TOPIC TAGS: ignition temperature, thermite mixture, activation energy

ABSTRACT: The previously described method for studying thermal explosions (A. G. Merzhanov, V. G. Abramov, F. I. Dubovitskiy, Dokl. AN SSSR, 128, 1238, 1959; V. V. Barzykin, A. G. Merzhanov, Zh. fiz. khim. 38, 2640, 1964.) was modified and used for investigating the reaction kinetics and self-ignition temperature of a thermite mixture consisting of Fe_2O_3 52.5, Al 17.5, and Al_2O_3 30%. The mixture was pressed to form cylindrical specimens with a constant length to diameter ratio $l/d = 0.2$, a density $\rho \approx 2.3 \text{ g/cm}^3$, and a thickness varying from 0.095 to 0.320 cm. The specimen was immersed in molten Pb and heated in an electric furnace. The temperature at which a "surf" appeared on the lead surface was found to be the critical self-ignition temperature of the thermite specimen. The critical temperature decreased as the thickness of the specimen increased from 810C for a 0.095 cm thick specimen to 676C for a 0.320 cm thick specimen. The activation energy and the rate of the

Card 1/2

UDC: 541/.545 15

ACC NR: AP6008096

heat of reaction were calculated to be 40,000 cal/mole and 4.5×10^6 cal/g-sec, respectively. Since there is no gas evolution during a thermite reaction, thermite mixtures may be used as simple models for studying thermal explosions and the self-ignition of condensed systems. Orig. art. has: 2 figures, 1 table, and 4 formulas. [PS]

SUB CODE: 19/ SUBM DATE: 05Jan65/ ORIG REF: 007/ ATD PRESS: 42/8

Card 2/2

LARIKOV, L.N.; ZASIMCHUK, Ye.E.; SHKIROV, V.S.

Effect of small additions of carbon on the kinetics of recovery and recrystallization of alpha-iron. Fiz. met. i metalloved. 14 no.2: 218-222 Ag '62. (MIRA 15:12)

1. Institut metallofiziki AN UkrSSSR.
(Annealing of metals) (Iron—Metallography)

SHKIRYA, G., inzhener.

Power of a small mountain river. Prom.koop. no.1:34 Ja '56.
(Hydroelectric power) (Sawmills) (MLBA 9:6)

SHKIRYA, T.M.

Strength testing of bent chair parts made from beech limbs and
crowns. Der.prom. 9 no.10:11 0 '60. (MIRA 13:10)

1. L'vovskiy lesotekhnicheskii institut.
(Chairs) (Beech)

KANEVSKIY, V.P.; LEVIN, S.T.; LIBERMAN, M.L.; LIVSHITS, G.L.; RAYVICH,
I.D.; SHKITIN, V.I.

Concentration of slurries in a centrifugal force field. Koks. i
khim. no. 3:15-18 '61. (MIRA 14:4)

1. Dnepropetrovskiy gornyy institut (for Kanevskiy, Levin, Liberman).
2. Nikitovskaya Tsentral'naya ugleobogatitel'naya fabrika (for
Livshits, Rayvich, Shkitin).
(Coal preparation)

VOROZHTSOV, N.N., SHKREIN, V.P.

"Reduction of the Ammonolysis of Anthraquinone" Zhur. Obshch, Khim. 10, No. 10, 1940. Lab. of Dyestuffs, Moscow Chemico-Technological Inst. imeni D.I. Mendeleyev. Received 22, Oct. 1939.

Report U-1627, 11 Jan. 52

SHKITYI, V. I.

1A 25110

USSR/Chemistry - Dyes
Chemistry - Analysis

Jul/Aug 1947

"A Micromethod of Azo-dye Analysis," V. P. Shkitin,
4 pp

"Zhur Analiticheskoy Khimii" Vol II, No 4

A new rapid micromethod of azo-dyestuff analysis on the developed surface of various absorbents has been worked out. This method may be used for the determination of the structure of azo-dyestuffs present in objects under microanalysis.

LC

29F10

SHKITINA, M.I.

[Expanding reproduction and use of capital funds in the Soviet industry; a dissertation for the degree of candidate of the economic sciences] Rasshirennoe vosproizvodstvo i ispol'zovanie osnovnykh fondov v promyshlennosti SSSR; avto-referat dissertatsii na soiskanie uchenoi stepeni kandidata ekonomicheskikh nauk. Moskva, 1955. 14 p. (MLRA 9:1)
(Industry--Finance)

8(3)

AUTHOR:

Shkityov, A. V., Head Master,
Ivanovo Power Engineering Institute

SOV/161-58-2-25/30

TITLE:

On the Question of the Capacity Factor Variation in Electric Systems When Utilizing Automatic Additional Booster Transformers (K voprosu ob izmenenii koeffitsiyenta moshchnosti v elektricheskikh setyakh pri ispol'zovanii vol'todobavochnykh avtomaticheskikh regulirovochnykh transformatorov)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 2, pp 205-208 (USSR)

ABSTRACT:

The utilization of automatic additional booster transformers (ABT) is a very effective means for voltage regulation inasmuch as they permit voltage regulation in accordance with any parameter. When utilizing ABT's the control consists in that a certain additional quantity of the control flow with constant signs decreases or increases the magnetic circuit saturation angle. This leads to an alteration of the output voltage mean value according to law formula (2) which offers a possibility of regulating the system voltage at the very point of installation of the plant. In a system using ABT's the capacity factor is determined by the ratio of the actual

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On the Question of the Capacity Factor Variation in
Electric Systems When Utilizing Automatic Additional
Booster Transformers

SOV/161-58-2-25/30

output flowing through P to the apparent output W. P and W are produced by the fundamental oscillations as well as the highest harmonic oscillations of current and voltage. The deterioration of the capacity factor when using ABT's does not exceed a 1/2 percent and is very useful due to a considerable energy loss reduction and reduction of semi-conductor material costs. There are 1 figure and 3 Soviet references.

ASSOCIATION: Kafedra elektrooborudovaniya prompredpriyatiy Ivanovskogo energeticheskogo instituta (Chair of Electrical Equipment of Industrial Enterprises, Ivanovo Power Engineering Institute)

SUBMITTED: February 17, 1958

Card 2/2

SHKITOV, A.V., inzh.

Determining the operational parameters of an automatic regulating transformer in certain cases where it is used for the regulation of voltage in networks. Sbor.nauch.trud IBI no.8: 244-254 '58. (MIBA 13:4)

(Electric transformers)
(Voltage regulators)

SHKITOV, A. V., Cand Tech Sci --"Certain problems of the
application of automatic regulating transformers for the
adjustment of strains in electrical networks." Mos, 1961.

(Xin of Higher and Sec Spec Ed RSFSR. Mos Order of Lenin
Power Eng Inst) (KL, 8-61, 251)

- 340 -

SHKITOV, A.V., kand.tekhn.nauk

Degree of the decrease in the power factor of an electrical connection when using automatic regulating transformers of various designs. Izv.vys.ucheb.zav.; energ. 5 no.11:10-17 N '62.
(MIRA 15:12)

1. Ivanovskiy energeticheskiy institut imeni V.I. Lenina.
Predstvalena kafedroy elektrifikatsii promyshlennykh predpriyatiy.

(Electric power distribution)

VOROSHILOV, O.V., gornyy tekhnik-geolog; SHKITOV, K.S., gornyy inzh.

Boring with sinker drill machinery at the Mamir-Tau mine, Gor. zhur.
no.2:33-34 F '58. (MIRA 11:3)

1. Rudnik Temit-Tau (for Voroshilov). 2. Gornoye upravleniye
Kuznetskogo metallurgicheskogo kombinata (for Shkitov).
(Temir Tau--Boring) (Rock drills)

KRISTIN, Karl Adol'fovich, kand. tekhn. nauk; SHKITOV, Konstantin
Sergeyevich, gornyy inzh.; TARASOV, L.Ya., otv. red.;
YEROKHIN, G.M., red. izd-va; LOMILINA, L.N., tekhn. red.

[Improvement of working systems in mines] Sovershenstvovanie
sistem razrabotki na rudnikakh. Moskva, Gosgortekhnizdat,
1963. 206 p. (MIRA 16:5)
(Gornaya Shoriya—Mining engineering)

SHKITOV, M. S.

USSR/Physics
Specific Heat
Calorimetry

Sep 1946

"Specific Heat of Water Boundary by High-Polymeric Substances," S. M. Skuratov,
M. S. Shkitov, 3 pp

"Comptes Rendus (Doklady)" Vol LIII, No 7

The article describes a special calorimeter for measuring the true specific heat of liquid and solid substances. Accurate values would permit a method of determining the amount of bound solvent, as suggested by Durnanskiy. Tables of calorimetric results are given on gelatin and starch-jelly.

PA 21T111

SHKIYARUK, YE. A.

S/065/60/000/004/006/017
E071/E435

AUTHORS: Levchenko, D.N., Khudyakova, A.D., Kalitayeva, A.L.
Shkiyaruk, Ye.A., Khokhlov, V.I. and Chugreyeva, A.S.

TITLE: Non-Ionogenic Surface-Active Substances ..
De-Emulsifying Agents for Petroleum Emulsions

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.4,
pp.24-29

TEXT: Results of synthesis and testing of non-ionogenic surface-active substances (de-emulsifying agents) from fractions of alkylphenols, obtained as a by-product in the production of an antioxidant additive 2,6-ditertiarybutylparacresol (DBPK) are given. As a starting material for the synthesis monoalkylcresol fraction (126 to 142°C at 20 mm Hg) and residue from the production of DBPK and their mixtures and oxyethylene were taken. The experimental procedure is described in some detail. Specimens of alkylene glycols obtained were tested on petroleum emulsions as de-emulsifying agents and surface tensions of their aqueous solutions of various concentrations were tested (Fig.1). By varying the duration of oxyethylation process products containing various numbers of oxyethylene groups were obtained. It was found

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S/065/60/000/004/006/017
E071/E435

Non-Ionogenic Surface-Active Substances - De-Emulsifying Agents
for Petroleum Emulsions

that compounds containing less than 10 groups of oxyethylene were not completely soluble in water, while compounds containing larger proportions of these groups were well soluble. The surface tension of compounds containing from 14 to 32 groups varied little, particularly at low concentrations. With increasing number of groups up to 40 and above, the surface active properties of the compounds deteriorate. The best results were obtained with substances containing between 25 to 30 of oxyethylene groups. The latter type of compounds was named VNII NP-58. Its de-emulsifying activity was compared with other reagents used at present in the petroleum industry (table) and was found to be superior to that of other reagents. The consumption of this agent for the de-emulsification of Bashkirian crudes amounts to 0.005 - 0.01% and on thermochemical desalting of the Romashk crude - 0.03%. It is concluded that oxyethylation of by-products obtained during the production of DBPK should be introduced into the industry. There are 2 figures, 1 table and 6 Soviet references.

ASSOCIATION: VNII NP
Card 2/2

SHKRAYEV, A. S.

SHKRAYEV, A. S. - "Effect of Man's Agricultural Activity on the Runoff of the Oka River Basin to the City of Kaluga." Spb 23 May 52, Moscow Order of Lenin State U imeni M. V. Lomonosov. (Dissertation for the Degree of Candidate in Geographical Sciences).

SO: Vechernaya Moskva January-December 1952

USSR/Diseases of Farm Animals. Diseases Caused by Viruses and Rickettsiae.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40648.

Author : Rezvykh, A. I., Shklayev, I. P., Kabayev, K.

Inst :

Title : Malignant Pox Therapy in Goats.

Orig Pub: Veterinariya, 1957, 6, 33-34.

Abstract: The successful use of novarsenol (0.01 grams/kilograms intravenously, in a form of a 5% solution) in the initial stages of the disease with signs of a papular and vesicular exanthema is reported for goats.

Card : 1/1

SHKLAJEVA, M. G.

Lapkin, I. I. and the students, Shklayeva, M. G., Koryakina, G. A., and Vinokurova, O. N.--"Steric Hindrances at the Grignard Reactions. IV. On the new method of obtaining the Esters of the Secondary α -Oxyacids" (p. 1338)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1947, Vol. 17, No. 7

RUPAYS, Amand Arvidovich; LUSIS, Ya.Ya.[Lusis, J.], prof., retsenzent;
TSINOVSKIY, Ya.P., retsenzent; SHKLENNIK, Ch., red.; LEMBERG, A.,
tekhn. red.

[Dendrophilous plant lice in the parks of Latvia] Dendrofil'nye
tli v parkakh Latvii. Riga, Izd-vo Akad. nauk Latviiskoi SSR,
1961. 251 p. (MIRA 15:2)

1. Latviyskiy gosudarstvennyy universitet (for Lusis). 2. Zave-
duyushchiy sektorom zoologii i parazitologii Instituta biologii
Akademii nauk Latviyskoy SSR (for TSinovskiy).
(Latvia--Plant lice)

VALDMAN, Andrey Robertovich [Valdmanis, Andrejs]; SHKLENNIK, Ch.,
red.; LEMBERG, A., tekhn. red.

[Studying standards for vitamin nutrition in swine and poultry
breeding; instruction methods] Izuchenie norm vitaminnogo pita-
niia v svinovodstve i ptitsevodstve; metodicheskie ukazaniia.
Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1961. 37 p.
(MIRA 15:3)

(Vitamins) (Swine---Feeding and feeds)
(Poultry---Feeding and feeds)

RUDAYS, Ya.[Rudais, J.]; KAKHAN, L.[translator]; SHKLENNIK, Ch.,
red.; MIRONOV, tekhn. red.

[Rigas Jurmala] Rizhskoe vzmor'ie. Riga, Latviiskoe gos.
izd-vo, 1960. 108 p. (MIRA 16:5)
(Rigas Jurmala--Guidebooks)

GRINVALD, Pavel Pavlovich; SHKLENNIK, Ch., red.; BITAR, A., tekhn.
red.

[Automatic control of room temperature in low-pressure steam
heating] Avtomaticheskoe regulirovanie temperatury pomeshchenii
pri parovom otoplenii nizkogo davleniia. Riga, Izd-vo Akad.
nauk Latviiskoi SSR, 1962. 24 p. (Nauchno-tekhnicheskaiia in-
formatsiia, no.6) (MIRA 15:12)
(Automatic control) (Steam heating, Low pressure)

GROMOV, V.S., kand. khim. nauk, otv. red.; DONBURG, G.E., kand. khim. nauk, red.; IYEVIN'SH, I.K. [Ievins, I.], kand. tekhn. nauk, red.; KAL'NINA, V.K. [Kalnina, V.], kand. tekhn. nauk, red.; RUPAYS, Ye.A. [Rupais, E.], kand. khim. nauk, red.; SERGEYEVA, V.N., doktor khim. nauk, red.; ERMUSH, N.A. [Ermus, N.], st. nauchn. sotr., red.; YUKNA, A.D. [Jukna, A.], kand. tekhn. nauk, red.; LEVI, S., red.; SHKLENNIK, Ch., red.

[Chemical processing and preserving of wood] Khimicheskaya pererabotka i zashchita drevesiny. Riga, Izd-vo AN Latv.SSR, 1964. 238 p. (MIRA 10:1)

1. Latvijas Padomju Socialistiskās Republikas Zinatnu Akadēmija. 2. Institut khimii drevesiny AN Latviyskoy SSR (for Gromov, Sergeyeva, Ermush).

GUTMANIS, Krists; GUTMANE, Laima; PETERSONS, E., kand. sel'khoz.
nauk, retsenzent; MILLERS, A., st. nauchn. sotr.,
retsenzent; SHKLENNIKS, Ch., red.; PILADZE, Z., tekhn.
red.

[Significance and use of vitamins in vegetable growing]
Vitaminu nozime un pielietosana darzenu audzesana. Riga,
Latvijas PSR Zinatnu akademijas izd-va, 1962. 54 p.
(MIRA 17:2)

1. Biologicheskiy institut Akademii nauk Latviyskoy SSR
(for Petersons, Millers).

KUKAYN, R.A.[Kukain, R.], kand. med. nauk, red.; PLANDER, E.M.[Planders,E.],
kand. med. nauk, red.; LAGANOVSKIY, S.Ya., kand. biol. nauk, red.;
PAVLOVICH, D.Ya., kand. biol. nauk, red.; YAKOBSON, Yu.O.
[Jakabsons, J.], kand. biol. nauk, red.; SHKLENNIK, Ch., red.;
PILADZE, Ye.[Piladze, E.], tekhn. red.

[Micro-organisms and the environment] Mikroorganizmy i sreda. Riga,
Izd-vo Akad. nauk Latviiskoi SSR, 1962. 142 p. (MIRA 16:2)

1. Latvijas Padomju Socialistiskas Republikas Zinatnu Akademijs.
Mikrobiologijas instituts.
(MICRO-ORGANISMS)

STRADYN', Yan Pavlovich [Stradins, Janis]; SHKLENNIK, Ch.[Sklenņiks,C.], red.;
LEMBERG, A.[Lembergs, A.], tekhn. red.

[Polarography of organic nitro compounds] Poliarografiia organi-
cheskikh nitrosoedinenii. Riga, Izd-vo Akad. nauk Latvīskoi
SSSR, 1961. 162 p. (MIRA 15:3)

(Nitro compounds) (Polarography)

Shklyar, Leonid Andreyevich; SHKLENNIK, Ch., red.

[Random search in problems of the optimization of multi-parametric systems] Sluchainyi poisk v zadachakh optimizatsii mnogoparametricheskikh sistem. Riga, izd-vo "Zinatne," 1965. 211 p. (MIRA 18:6)

MADEIRA, 18. 11, (1954)

Dissertation: "Molds for Castings Made by the Lost-Wax Method." Cand Tech Sci, All-Union Correspondence Polytechnic Inst, Ministry of Higher Education USSR, 21 Jun 54.
(Vechernyaya Moskva, Moscow, 11 Jun 54)

SO: SUM 318, 23 Dec 1954

SHKLENNIK, YA. I.

In book--

Shaped Casting of Copper (Cont.) Moscow, Mashgiz, 1957, 509x 205 pp.

Collection of articles.

procedure of copper-alloy casting in plaster-of-Paris molds, from the preparation of plaster and mold-making to the cleaning of the finished castings. There are numerous illustrations depicting the various stages of the process. Experiments conducted by VNIIZhelezobeton (All-Union State Scientific Research Institute for Reinforced-concrete Parts and Structures) and VIAM (All-Union Scientific Research Institute of Aviation Materials) are reported to have shown that the permeability of plaster molds to gases may be increased by steaming them prior to baking, which also results in coarser grain, less warping, and reduced shrinkage. No personalities are mentioned. There are no references.

This book contains papers presented during a technical and scientific convention Moscow, Dec, '55, on theory and practice of shaped copper-alloy-castings.

Shklennik, Ya, I., Candidate of Technical Sciences

Bronze Casting by the Lost-wax Process

175

The author regards this casting method as a very economical one, which gives high dimensional accuracy combined with good surface finish. The wax patterns for bushings are said to be made on a specially designed machine with a retractable metal core. Topics discussed include the various methods of multiple and cluster casting as well as some methods of pattern coating and the coating compound used. Soviet personalities mentioned include A. I. Cherkasov, Design Card 15/17 Engineer V. A. Alekseyev, and P. S. Parshin,

MALEGIN, M.D.; SHKLENIK, Ya.I.

Physical and mechanical properties of shell molds. Lit.proizv.
no.10:28-30 0 '57. (MIRA 10:12)
(Foundry machinery and supplies)

Methods of Making High-Precision Castings 989

COVERAGE: The authors of the articles in this book have attempted to elucidate various aspects of precision casting by several methods, such as casting by the lost-wax process, in gypsum cement molds, in shell molds, and in silicate-bonded molds. The following topics are discussed: mechanical properties of structural and special-purpose steels of various types during the filling of hot molds made by the lost-wax process; investigation and practical application of various materials (low-melting compositions, refractory coatings, binders, different types of gypsum for casting of nonferrous metals); techniques of making intricate shell-mold cores; etc. This collection of articles is based on materials presented at a conference on the exchange of experience in the production of precision casting, held in 1956 at the Moskovskiy dom nauchno-tekhnicheskoy propagandy im. F.E. Dzerzhinskogo (Moscow Office of Scientific and Technical Propaganda im. F.E. Dzerzhinskiy).

Ozerov, V.A., Candidate of Technical Sciences. Pattern Compositions

Card 2/5

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Andreyev, N.I.; Glaz, M.G.; Lepilov, N.Ya.; Chernyak, G.N. On the Use of Powdered Bakelite in Investment Casting	44
Alekseyevskaya, Ye.K., Engineer, Sorokin, P.V., Candidate of Technical Sciences. The Use of Shell Molds and Fused Quartz in the Production of Investment Castings	47
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Filippov, I.I., Engineer, Kuz'min, S.I., Engineer. Special Features of Casting Heat-Resistant Alloys by the Lost-Wax Process	93
Briskin, Ya.I., Engineer. Experience Gained in the Casting of Cutting Tools and Measuring Instruments in Shell Molds	100
Kolacheva, O.V., Engineer. An Investigation of the Thermal Stability of Shell Molds	112

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Methods of Making High-Precision Castings 989

Prosyaniuk, G.V., Engineer. Obtaining Precision Steel Castings
with the Use of Press-Formed Molds and Cores Made of Chemi-
cally Setting Compositions 120

Baradan'yants, V.G., Engineer. The Casting of Nonferrous Metals
in Gypsum Cement Molds 124

Prosyaniuk, G.V., Engineer. Shell-Mold Casting of Precision
Parts 133

AVAILABLE: Library of Congress

Card 5/5

G0/sfm
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PHASE I BOOK EXPLOITATION 1052

Ozerov, Vladimir Aleksandrovich; Fel'dman, Solomon Samoylovich; and Shklennik, Yan Ivanovich

Lit'ye po vyplavlyayemym modelyam (Investment Casting) Moscow, Mashgiz, 1958.
321 p. 6,000 copies printed.

Reviewer: Kreshchanovskiy, N.S., Candidate of Technical Sciences; Scientific Ed.: Kurchman, B.S., Engineer; Tech. Ed.: Model', B.I.; Managing Ed. for informational literature (Mashgiz): Krylov, V.I.

PURPOSE: This book is intended for engineers, technicians and foremen in founding production and may be useful to students specializing in this field.

COVERAGE: The book covers all aspects of investment casting: pattern-making methods and materials, molding techniques and mold materials, methods of melting and pouring metal, equipment used, principles of casting design, mechanical properties, and accuracy and surface quality of castings. The author stresses that work has been and is being done in the field of application of waterglass for coatings which may bring about a 90 percent reduction in the

Card 1/6

Investment Casting 1052

cost of the coating. In several Soviet plants, mass production of castings by the investment method has already been introduced. No personalities are mentioned. There are 190 references, of which 171 are Soviet, 15 English, and 4 German.

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Card 2/6

AUTHOR: Shklennik, Ya.I.

SOV-128-58-9-5/16

TITLE: Two Methods for the Hydrolysis of Ethylsilicate (O dvukh sposobakh gidroliza etilsilikata)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 9, pp 12-14 (USSR)

ABSTRACT: There are two methods for the hydrolysis of ethylsilicate: the one-phase and the two-phase method. In the article, the influence of the two methods on the resistance of the coatings is investigated. In the one-phase hydrolysis, ethylsilicate was poured into a mixture of alcohol, water and hydrochloric acid, and stirred until the temperature reached its maximum. The thermometer readings during hydrolysis and the relative transparency of the solutions are given in Table 2. The prepared specimens were tested for bending, breaking, and permeability to gases. The results of the tests are given in Table 3. It is evident that the resistance of the tempered coatings depends only slightly on the method of hydrolysis and the content of water in the interval 0 - 0.75 moles per 1 mole of SiO_2 . With an increase in water content, the resistance of the tempered coatings prepared by the two-phase method falls sharply. At a content of more than 0.5 moles of water per 1 mole of

Card 1/2

Two Methods for the Hydrolysis of Ethylsilicate

SOV-128-58-9-5/16

SiO₂, the resistance is lower than required by industrial standards. Bending resistance in the experiments was nearly three times the tensile strength. The test results for gas permeability are given in Table 5. The gas permeability does not depend on the method of hydrolysis and the content of water in the solution. The one-phase method is recommended for use in industry. There are 5 tables, 1 graph, 1 diagram, and 6 Soviet references.

1. Ethylsilicate--Hydrolysis
2. Ethylsilicate--Properties
3. Ethylsilicate--Test results

Card 2/2

IVANOV, Valentin Nikolayevich; OSOKIN, Nikolay Mikhaylovich; SHKLENNIK,
Ya.I., kand.tekhn.nauk, retsenzent; SNOPOV, M.A., inzh., red.;
CHERNYAK, O.V., inzh., red.izd-va; SOROKINA, G.Ye., tekhn.red.

[Mechanization of investment casting processes] Mekhanizatsiia
lit'ia po vyplavliaemym modeliam. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroit.lit-ry, 1959. 207 p. (MIRA 13:2)
(Precision casting) (Foundries--Equipment and supplies)

PHASE I BOOK EXPLOITATION

SOV/5976

Shklennik, Ya. I., A. V. Baranov, V. N. Ivanov, S. A. Kazennov, B. S. Kurchman,
N. N. Lyashchenko, R. A. Marulidi, G. K. Militsin, V. A. Ozerov, A. I.
Sitnichenko, M. Ya. Telis, and M. L. Khenkin

Lit'ye po vyplavlyayemym modelyam (Investment Casting) [Leningrad] Mashgiz
[1961] 455 p. (Series: Inzhenernyye monografii po liteynomu proizvodstvu)
Errata slip inserted. 8000 copies printed.

Eds. (Title page): Ya. I. Shklennik and V. A. Ozerova; Reviewers: N. D. Titov,
Candidate of Technical Sciences, and A. I. Klauzen, Engineer; Ed.: Yu. L. Markiz,
Engineer; Tech. Eds.: A. Ya. Tikhanov, Z. I. Chernova and V. D. El'kind; Man-
aging Ed. for Literature on Hot-Working of Metals: S. Ya. Golovin, Engineer.

PURPOSE: This book is intended for engineering and technical personnel in the
metalworking industry and for scientific research workers. It may also be used
by students specializing in foundry work.

COVERAGE: The book reviews the most important problems in investment casting.
Among the topics considered are the following: mechanical properties of castings;

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KOROTKOV, A.I., inzh.; POLEVAYA, A.M., inzh.; SHKLENNIK, Ya I.,
kand. tekhn. nauk, retsenzent; OZEROV, V.A., kand. tekhn.
nauk, red.; OSIPOVA, L.A., red.izd-va; EL'KIND, V.D.,
tekhn. red.

[Casting in shell molds] Lit'e v obolochkovye formy. Mo-
skva, Mashgiz, 1963. 299 p. (MIRA 16:8)
(Shell molding (Founding))

SHKLENNIK, Ya.I.; BATYSHEV, A.I.

Use of undulated surfaces for the control of hot cracking in steel
casting. Lit.proizv. no.4:1-3 Ap '63. (MIRA 16:4)
(Steel castings--Defects) (Thermal stresses)
(Surfaces (Technology))

LYASS, A.M., doktor tekhn. nauk; SHKLENNIK, Ya.I., kand. tekhn.
nauk, retsenzent; SHESTKOVA, I.N., inzh., red.

[Quick hardening molding mixtures] Bystrytverdeiushchie
formovochnye smesi. Moskva, Mashinostroenie, 1965. 331 p.
(MIRA 18:2)

MEDVEDEV, Ya.I., kand. tekhn. nauk; SHKLENNIK, Ya.I., kand.
tekhn. nauk, retsenzent; VALISOVSKIY, I.V., kand. tekhn.
nauk, red.

[Gases in the foundry mold] Gazy v liteinoi forme. Mo-
skva, Mashinostroenie, 1965. 238 p. (MIRA 18:9)

L 23083-66 EWT(m)/T/EWP(t)/EWP(e) IJP(c) JD/WH/MJW(CL)

ACC NR: AP5028998

SOURCE CODE: UR/0128/65/000/009/0001/0003

AUTHOR: Krestovnikov, A. N. (Doctor of technical sciences); Vendrikh, M. S. (Candidate of technical sciences); Shklennik, Ya. I. (Candidate of technical sciences); Kuz'micheva, V. I. (Engineer); Matusevich, I. S. (Engineer); Telis, M. Ya. (Engineer)

ORG: none

TITLE: Silica-free molds for casting high-temperature alloys and refractory metals

SOURCE: Liteynoye proizvodstvo, no. 9, 1965, 1-3

TOPIC TAGS: metal casting, silica, refractory metal, nitrate, high temperature alloy

ABSTRACT: Although previous studies have demonstrated the unsuitability of SiO_2 as a molding material for casting refractory metals and alloys, most binders used in investment-pattern casting contain SiO_2 and a radical solution of this problem would be the use of silica-free binders with chemical properties analogous or close to those of the refractory materials (oxides). Ethylsilicate-type silicones meet this need but they are too scarce and expensive. Two of the authors (Ya. I. Shkley-nik and I. S. Matusevich. Author's Certificate [Patent] no. 162299 of 25 Apr 1963), have previously established that saturated aqueous solutions of nitrate salts can, following their thermal or chemical decomposition, be used as binders for the preparation of silica-free molds. In this connection, the authors describe laboratory

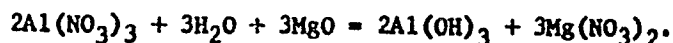
Card 1/3

UDC: 621.74.045

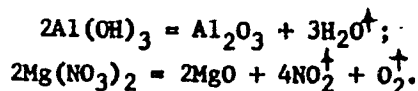
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experiments with the construction of molds based on the use of aluminum nitrate as the silica-free binder, with the setting of the mix being a result of the exchange reaction between the aqueous solution of nitrate salt and oxide:



Sieve-screened metallurgical magnesite and chamotte were used as the fillers. On subsequent firing at 950°C the resulting aluminum hydroxide and magnesium nitrate decompose to form high-disperse oxides assuring the strength of the mix in heated state.



The molds were shaped by hand on wood models, dried for 2-3 hr at 300-400°C, heated to 950°C and filled with G13L manganese steel at 1650°C or with L114 steel at 1750°C. Findings: No signs of scorching could be observed on the molds but some parts of their surface displayed bead-like projections which were traced to bubbles of air escaping from their surface; this is a minor technical problem that can be ironed out by a more efficient preparation of the mix. The results confirmed that solutions of nitrate salts and primarily of aluminum nitrate may be used as binders for molding

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sands. The two major shortcomings of this method -- the release of toxic nitrogen oxides during the firing of the molds and the considerable (2%) shrinkage of the mix -- are technical problems that can be solved. Experiments have shown that the binder Al_2O_3 can be used in the preparation of silica-free molds of sillimanite, zircon, electrolytically produced corundum and other materials for the vacuum casting of magnets and high-temperature alloys as well as for the casting of Ti and Cr alloys. Orig. art. has: 1 table, 3 figures. 4

SUB CODE: 11, 12, 13/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 001

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SHKLENNIK, Ya.I., kand. tekhn. nauk; LYAN' TSZIN'-TSZYAN [Lien Chin-chiang],
kand. tekhn. nauk

Thermophysical properties of shell molds in precision casting.
Lit. proizv. no.12:25-29 D '65. (MIRA 18:12)

PAEGLIS, Ya.S.[Paeglis, Janis]; PEYLE, Ye.Ya.[Peile, Eizenija], red.;
SHKLENNIKS, Ch.[Sklenniks, C.], red.; PILADZE, Zh.[Piladze, Z.],
tekh. red.

[Academician Gustavs Vanags; a biobibliography] Akademiks
Gustavs Vanags; biobibliografija. Riga, Latvijas PSR Zinatnu
akademijas izdevnieciba, 1961. 110 p. (MIRA 15:3)

1. Latvijas Padomju Socialistiskas Republikas Zinatnu akademijs.
Fundamentala biblioteka.
(Bibliography--Vanags, Gustavs, 1891-)